



1600

ENTERED

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/651,150B

DATE: 11/28/02

TIME: 10:14:15

Input Set : D:\seqlist.txt

Output Set : N:\CRF4\11082002\I651150B.raw

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5 <110> APPLICANT: Payan, Donald
9 <120> TITLE OF INVENTION: TOSO AS A TARGET FOR DRUG SCREENING
13 <130> FILE REFERENCE: RIGL-503CON
17 <140> CURRENT APPLICATION NUMBER: US 09/651,150B
19 <141> CURRENT FILING DATE: 2000-08-30
23 <150> PRIOR APPLICATION NUMBER: US 09/050,861
25 <151> PRIOR FILING DATE: 1998-03-30
29 <160> NUMBER OF SEQ ID NOS: 31
33 <170> SOFTWARE: PatentIn version 3.1
37 <210> SEQ ID NO: 1
39 <211> LENGTH: 1911
41 <212> TYPE: DNA
43 <213> ORGANISM: Homo sapiens
45 <400> SEQUENCE: 1
47 aaaggagtag acagatgac tcaatccccc tctctagggg ctcttggaag gaccttgc 60
49 tctagaagaa caaatgaact tctgagtttg gccactttac ttctgacag tatcagagc 120
51 cctagagata ctcccagaag taaagggtga gggggagctg ggaggatcag ttacatcaa 180
53 atgaccactt cctgaaatcc atgtgagcat atatctctgc cgggagatgg ctggatctac 240
55 aacatctatg aacgctatct caacacacaa ctctcatcag gcagatatca agggccgact 300
57 tactctgaag caatanacac gaaagaatct gttcttagtg gaggtaacac agctgacaga 360
59 aagtgcacag agagtctatg cctggggagg gggcatgaac acagacgggg gaaagaccca 420
61 gaaagtcaac ctgaatctcc aaagtgaata cgagccatca tgggaagagg agccaattcc 480
63 ttagaactca aatatcttgc atctgacctt ttgtctcag atgcttgcct atgcaagttc 540
65 ttccaaattc ctaccacag ttaccacacc agctcaaaag ggcaaggctc ctccatttca 600
67 ccaactctcc cccaccaccc aaatcaccca cggccctcga gtgtccagag catcttcaat 660
69 agcagggtga aggcacccaa ccttccctcc atccactaca gctcaaaaa tctcaactct 720
71 gaaggagctc ctcaaacc aaaccccacg ctacaaccac cacaccaggc tgcacaggca 780
73 gacagcactc caatatgctt caagctctcc gaggcaaggg caaggatttc aatctctgat 840
75 ccccaccata ctgacattt tctgcttgc acttctgagg ctggtggtga aaagggccct 900
77 tgaagaaatc aaagcctct caggcggggc ccccgactg cccgtgagga tgcgcgccct 960
79 gaagagctcc cagacccccc agggctcacc ggcacccccc tccccaaaa aatctacag 1020
81 cgcctgcccg cggcgccctc ctgagagcga ccttcaaggg acaggggagg cccccccttc 1080
83 ccccaccaca cccccttgc ccccgcgcc gctcgaagtg tctgaatctc cctgacctca 1140
85 tgcacctctc ctgaacacaa gctctgaata cgttcagctc taccaccacc ctcccgccat 1200
87 gatagagaa actaatctag atactacat caatcttctt cctgacacac tccccacta 1260
89 tccccaaa ccaagctctg actgtgctgc caaggaattc catctatctg ctgatttcca 1320
91 atactgctt catctattct cagaagctc atcaatttcc atccccata tgaactccca 1380
93 tccatctc tctgttccc taccatctc tctacccca gctggtcttg caaaccttca 1440
95 caacccctc taccctccac ctacatctc agcatctaga caaattctcc caatgcaact 1500
97 tcttctctt ccaacccctc caaacacata tggatttgc agagtggttc ttccatgct 1560
100 ttcacacac ggtatttct ctacacac ctacatcaca tggcatcagg ctgaggaat 1620
102 ccaatagctc tctctctc catctctc aatttctt ctacacaaa taccacac 1680
104 ttctctcct tctctctc tctctctc caatctctc caagacac tctctctc 1740

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/651,150B

DATE: 11/08/02

TIME: 11:11:03

Input File : D:\seqlist.txt

Output File : N:\CRF4\11082002\I651150B.raw

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106 a t t e c t p h a a a c c t c t t t c c c t a t c c a a a t a t t a g c a c t t c c t a a t g a a c c t c t a c t t 1800
108 a t t e c t p h a a a c c t c t t t a a a c c c a a t t a t c t t a t g t g a t t a t a a c c a a a t t a t t a t 1800
110 c c a a t a t c c a t a t a t a t c c a t a a a t t c t c t t t a c t c t g t c t c a t c c t t t 1911
113 >113> SEQ ID NO: 1
115 >113> LENGTH: 395
117 >113> TYPE: PRT
119 >113> ORGANISM: Homo sapiens
121 >113> SEQUENCE:
123 Met Asp Arg Trp Leu Trp Pro Leu Tyr Phe Leu Pro Val Ser Gly Ala
126 1 5 10 15
128 Leu Arg Ile Leu Pro Glu Val Lys Val Glu Gly Glu Leu Gly Gly Ser
131 20 25 30
133 Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
136 35 40 45
138 Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
141 50 55 60
143 Thr Asn Phe Ile Lys Ala Glu Tyr Lys Gly Arg Val Thr Leu Lys Ile
146 65 70 75 80
148 Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
151 85 90 95
153 Ser Asp Ser Gly Val Tyr Ala Cys Gly Ala Gly Met Asn Thr Asp Arg
156 100 105 110
158 Gly Lys Thr Gln Lys Val Thr Leu Asn Val His Ser Glu Tyr Glu Pro
161 115 120 125
163 Ser Trp Glu Glu Gln Pro Met Pro Glu Thr Pro Lys Trp Phe His Leu
166 130 135 140
168 Pro Tyr Leu Phe Gln Met Pro Ala Tyr Ala Ser Ser Ser Lys Ile Val
171 145 150 155 160
173 Thr Arg Val Thr Thr Pro Ala Gln Arg Gly Lys Val Pro Pro Val His
176 165 170 175
178 His Ser Ser Pro Thr Thr Gln Ile Thr His Arg Pro Arg Val Ser Arg
181 180 185 190
193 Ala Ser Ser Val Ala Gly Asp Lys Pro Arg Thr Phe Leu Pro Ser Thr
196 195 200 205
198 Thr Ala Ser Lys Ile Ser Ala Leu Glu Gly Leu Leu Lys Pro Gln Thr
201 210 215 220
203 Pro Ser Tyr Asn His His Thr Arg Leu His Arg Gln Arg Ala Leu Asp
206 225 230 235 240
208 Tyr Gly Ser Gln Ser Gly Arg Glu Gly Gln Gly Phe His Ile Leu Ile
211 245 250 255
213 Pro Thr Ile Leu Gly Leu Phe Leu Leu Ala Leu Leu Gly Leu Val Val
216 260 265 270
218 Lys Arg Ala Val Glu Arg Arg Lys Ala Leu Ser Arg Arg Ala Arg Arg
221 275 280 285
223 Leu Ala Val Arg Met Arg Ala Leu Glu Ser Ser Gln Arg Pro Arg Gly
226 290 295 300
228 Ser Pro Arg Pro Arg Ser Gln Asn Asn Ile Tyr Ser Ala Cys Pro Arg
231 305 310 315 320
233 Arg Ala Arg Gly Ala Asp Ala Ala Gly Thr Gly Glu Ala Pro Val Pro

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/651,150B

DATE: 11/08/2002

TIME: 10:11:00

Inq: Seq : D:\seqlist.txt

Out: Seq : N:\CRF4\11082002\I651150B.raw

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206          335          350          365
209 Gly Pro Gly Ala Phe Leu Pro Pro Ala Pro Leu Gln Val Ser Gln Ser
210          345          345          365
213 Pro Trp Leu His Ala Pro Ser Leu Lys Thr Ser Cys Gln Tyr Val Ser
214          345          360          365
217 Leu Tyr His Gln Phe Ala Ala Met Met Gln Asp Ser Asp Ser Asp Asp
218          376          376          380
221 Tyr Ile Asn Val Pro Ala
222 385          390
223 <10> SEQ ID NO: 3
224 <11> LENGTH: 75
225 <12> TYPE: PRT
226 <13> ORGANISM: Homo sapiens
227 <100> SEQUENCE: 3
230 Val Thr Ile Lys Cys Pro Leu Pro Glu Met His Val Arg Ile Tyr Leu
231 1          5          10          15
234 Cys Arg Glu Met Ala Gly Ser Gly Thr Cys Gly Thr Val Val Ser Thr
235 20          25          30
238 Thr Asn Phe Ile Lys Ala Glu Trp Lys Gly Arg Val Thr Leu Lys Gln
239 35          40          45
242 Tyr Pro Arg Lys Asn Leu Phe Leu Val Glu Val Thr Gln Leu Thr Glu
243 50          55          60
246 Ser Asp Ser Gly Val Tyr Ala Cys Gly
247 65          70
248 <10> SEQ ID NO: 4
249 <11> LENGTH: 79
250 <12> TYPE: PRT
251 <13> ORGANISM: Homo sapiens
252 <100> SEQUENCE: 4
255 Leu Ser Leu Thr Cys Thr Val Ser Gly Ser Thr Phe Ser Asn Asp Tyr
256 1          5          10          15
259 Tyr Thr Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Gln Trp Ile Gly
260 20          25          30
263 Tyr Val Phe Tyr His Gly Thr Ser Asp Asp Thr Thr Pro Leu Arg Ser
264 35          40          45
267 Arg Val Thr Met Leu Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Arg
268 50          55          60
271 Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
272 65          70          75
273 <10> SEQ ID NO: 5
274 <11> LENGTH: 75
275 <12> TYPE: PRT
276 <13> ORGANISM: Homo sapiens
277 <100> SEQUENCE: 5
280 Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn
281 1          5          10          15
284 Tyr Ala Asn Trp Val Gln Gln Lys Pro Asp His Leu Phe Thr Gly Ile
285 20          25          30
288 Gly Gly Thr Asn Asn Arg Ala Pro Gly Val Pro Ala Arg Phe Ser Gly

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## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/651,150B

DATE: 11/08/02

TIME: 1:11:44

Input File: D:\seqlist.txt

Output File: N:\CRF4\11082002\I651150B.raw

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310          35          40          45
313 Ser Leu Ile Gly Asn Lys Ala Ala Leu Thr Ile Thr Gly Ala Gln Thr
314          10          15          20
317 Glu Asp Glu Ala Lys Tyr Ile Cys Ala
318 65          70
321 <210> SEQ ID NO: 6
323 <211> LENGTH: 71
325 <212> TYPE: PRT
327 <213> ORGANISM: Homo sapiens
331 <400> SEQUENCE: 6
333 Thr Ser Leu Asn Cys Thr Phe Ser Asp Ser Ala Ser Gln Tyr Ile Thr
334 1          5          10          15
337 Trp Tyr Arg Gln His Ser Gly Lys Ala Pro Lys Ala Leu Met Ser Ile
338          20          25          30
341 Phe Ser Asn Gly Glu Lys Glu Glu Gly Arg Ile Thr Ile His Leu Asn
342          35          40          45
345 Lys Ala Ser Leu His Phe Ser Leu His Ile Arg Asp Ser Gln Pro Ser
346          50          55          60
349 Asp Ser Ala Leu Tyr Leu Cys Ala
350 65          70
353 <210> SEQ ID NO: 7
355 <211> LENGTH: 75
357 <212> TYPE: PRT
359 <213> ORGANISM: Homo sapiens
363 <400> SEQUENCE: 7
365 Val Thr Leu Arg Cys Lys Pro Ile Ser Gly His Asn Ser Leu Phe Trp
366 1          5          10          15
369 Tyr Arg Gln Thr Met Met Arg Gly Ile Glu Leu Leu Ile Tyr Ile Asn
370          20          25          30
373 Asn Asn Val Pro Ile Asp Asp Ser Gly Met Pro Glu Asp Arg Ile Ser
374          35          40          45
377 Ala Lys Met Pro Asn Ala Ser Phe Ser Thr Leu Lys Ile Gln Pro Ser
378          50          55          60
381 Glu Pro Arg Asp Ser Ala Val Tyr Phe Cys Ala
382 65          70          75
385 <210> SEQ ID NO: 8
387 <211> LENGTH: 74
389 <212> TYPE: PRT
391 <213> ORGANISM: Homo sapiens
395 <400> SEQUENCE: 8
397 Val Glu Leu Thr Cys Thr Ala Ser Gln Lys Lys Ser Ile Gln Phe His
398 1          5          10          15
401 Trp Lys Asn Ser Asn Gln Ile Lys Ile Leu Gly Asn Gln Gly Ser Phe
402          20          25          30
405 Leu Thr Lys Gly Pro Ser Lys Leu Asn Asp Arg Ala Asp Ser Arg Arg
406          35          40          45
409 Ser Leu Trp Asp Gln Gly Asn Phe Pro Leu Ile Ile Lys Asn Leu Lys
410          50          55          60
413 Ile Glu Asp Ser Asp Thr Tyr Ile Cys Glu

```

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/651,150B

DATE: 11-08-02

TIME: 11:00:00

Input File : D:\seqlist.txt

Output File : N:\CRF4\11082002\I651150B.raw

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414 <210> SEQ ID NO: 10
415 <211> LENGTH: 76
416 <212> TYPE: PRP
417 <213> ORGANISM: Homo sapiens
418 <400> SEQUENCE: 5
419 Ala Lys Met Ser Cys Glu Ala Lys Thr Phe Pro Lys Gly Thr Thr Ile
13 1 5 10 15
420 Tyr Trp Leu Arg Glu Leu Gln Asp Ser Asn Lys Asn Lys His Phe Glu
16 20 25 30
421 Phe Leu Ala Ser Arg Thr Ser Thr Lys Gly Ile Lys Tyr Gly Glu Arg
35 40 45
422 Val Lys Lys Asn Met Thr Leu Ser Phe Asn Ser Thr Leu Pro Phe Leu
50 55 60
423 Lys Ile Met Asp Val Lys Pro Glu Asp Ser Gly Ile Tyr Phe Cys Ala
65 70 75 80
424 <210> SEQ ID NO: 10
425 <211> LENGTH: 76
426 <212> TYPE: PRP
427 <213> ORGANISM: Homo sapiens
428 <400> SEQUENCE: 10
429 Val Thr Ile Thr Cys Pro Phe Thr Tyr Ala Thr Arg Gln Leu Lys Lys
10 1 5 10 15
430 Ser Phe Tyr Lys Val Glu Asp Gly Glu Leu Val Leu Ile Ile Asp Ser
20 25 30
431 Ser Ser Lys Glu Ala Lys Asp Pro Arg Tyr Lys Gly Arg Ile Thr Leu
35 40 45
432 Glu Ile Gln Ser Thr Thr Ala Lys Glu Phe Thr Val Thr Leu Lys His
50 55 60
433 Leu Glu Leu Asn Asp Ala Gly Gln Tyr Val Cys Gln
65 70 75
434 <210> SEQ ID NO: 11
435 <211> LENGTH: 84
436 <212> TYPE: PRP
437 <213> ORGANISM: Homo sapiens
438 <220> FEATURE:
439 <221> NAME/KEY: MISC_FEATURE
439 <222> LOCATION: (6)..(51)
439 <223> OTHER INFORMATION: "Xaa" at positions 6-7, 9-18, 20, 22, 25-32, 34-35, 37-48
and 50
439 -51 can be any amino acid.
439 <220> FEATURE:
439 <221> NAME/KEY: MISC_FEATURE
439 <222> LOCATION: (53)..(53)
439 <223> OTHER INFORMATION: "Xaa" at position 53 can be Phe, Val, or Ile.
439 <220> FEATURE:
439 <221> NAME/KEY: MISC_FEATURE
439 <222> LOCATION: (54)..(76)
439 <223> OTHER INFORMATION: "Xaa" at positions 54-61, 71, and 74-76 can be any amino
acid.
439 <220> FEATURE:

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RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/09/651,150BDATE: 11-08-02  
TIME: 11:11:4Input File: D:\seqlist.txt  
Output File: N:\CRF4\11082002\I651150B.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:11; Xaa Pos. 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 22, 23, 26, 27, 28, 29, 30

Seq#:11; Xaa Pos. 31, 32, 34, 35, 37, 38, 39, 40, 41, 42, 43, 44, 45, 46, 47, 48, 50, 51, 52

Seq#:11; Xaa Pos. 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64, 65, 71, 73, 74, 75, 76, 79, 80

Seq#:11; Xaa Pos. 81

Seq#:25; Xaa Pos. 3, 4, 5

## VERIFICATION SUMMARY

PATENT APPLICATION: US/09/651,150B

DATE: 11/08/02

TIME: 15:05:44

Input File : D:\seqlist.txt

Output File : N:\CRF4\11082002\I651150B.raw

1:544 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:5  
1:548 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:10  
1:552 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:15  
1:556 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:20  
1:560 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:24  
1:564 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:11 after pos.:29  
1:864 M:341 W: (40) "n" or "Xaa" used, for SEQ ID#:25 after pos.:0